CLAIMS

What is claimed as being new and desired to be protected by LETTERS PATENT of the United States is as follows:

1. A rowing apparatus for connection to a vessel, comprising:

an oar direction-of-motion reversal assembly, which includes an oar handle portion, an oar blade portion, and a casement assembly for supporting said oar handle portion and said oar blade portion,

fulcrum stabilizing means connected to said oar direction-of-motion reversal assembly, wherein said fulcrum stabilizing means include a centrally located first pivot/fulcrum member attached to said casement assembly, and said vessel-to-oar-apparatus connection means include a centrally located second pivot/fulcrum member connected to the vessel, and

vessel-to-oar-apparatus connection means connected to said fulcrum stabilizing means for connecting said apparatus to the vessel.

wherein said oar handle portion includes a handle grip portion, a handle arm portion connected to said handle grip portion, a handle pivot attached to said handle arm portion, and handle gear teeth attached to said handle arm portion,

wherein said oar blade portion includes an oar blade portion, a blade arm portion connected to said oar blade portion, an oar pivot attached to said blade arm portion, and blade gear teeth attached to said blade arm portion, and

wherein said fulcrum stabilizing means is positioned between said handle pivot and said oar pivot.

2. The apparatus of claim 1 wherein said handle grip portion includes a smooth gripping surface.

3. The apparatus of claim 1 wherein said handle grip portion includes finger reception channels.

4. The apparatus of claim 1, further including:

a handle pivot bearing, attached to said handle arm portion, for receiving said handle pivot, and

an oar pivot bearing, attached to said blade arm portion, for receiving said oar pivot.

5. The apparatus of claim 1 wherein said first pivot/fulcrum member is positioned between said handle pivot and said oar pivot.

6. The apparatus of claim 1 wherein:

said first pivot/fulcrum member is in a form of a ball, and

said second pivot/fulcrum member is in a form of a socket block that receives said ball.

7. The apparatus of claim 1 wherein each of said handle arm portion and said blade arm portion include respective gear guide tongues for riding in complementary gear guide grooves in a top portion of said casement assembly.

8. The apparatus of claim 1 wherein each of said handle arm portion and said blade arm portion include respective bearings for riding in a bottom portion of said casement assembly.

9. The apparatus of claim 8 wherein said bearings are ball bearings.

10. The apparatus of claim 1, further including:

an outer housing for housing said casement assembly, said ball, and said socket block.

11. The apparatus of claim 10 wherein said outer housing includes arm access channels.

12. The apparatus of claim 11, further including:

elastic sealing boots connected between said blade arm portion and said outer housing and between said handle arm portion and said outer housing for providing an elastic seal between said outer housing and said respective arm portions.

13. The apparatus of claim 1 wherein said vessel-to-oar-apparatus connection means include support struts connected between said oar direction-of-motion reversal assembly and the vessel.

14. The apparatus of claim 1 wherein said blade arm portion includes:

a first telescopic blade arm portion, and

a second telescopic blade arm portion received in said first telescopic blade arm portion.

15. The apparatus of claim 14 wherein said first telescopic blade arm portion is received inside said second telescopic blade arm portion and is locked thereto by locking pins.

16. The apparatus of claim 15 wherein said first telescopic blade arm portion is received inside said second telescopic blade arm portion and is locked thereto by locking threads.

17. A rowing vessel apparatus, comprising:

a vessel portion which includes a rower seating region which includes a seat assembly and rower foot placement members,

an oar direction-of-motion reversal assembly, which includes an oar handle portion, an oar blade portion, and a casement assembly for supporting said oar handle portion and said oar blade portion,

fulcrum stabilizing means connected to said oar direction-of-motion reversal assembly, wherein said fulcrum stabilizing means include a centrally located first pivot/fulcrum member attached to said casement assembly, and said vessel-to-oar-apparatus connection means include a centrally located second pivot/fulcrum member connected to the vessel, and

vessel-to-oar-apparatus connection means connected to said fulcrum stabilizing means for connecting said apparatus to the vessel.